

CONTINUING EDUCATION

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CONTINUING education: what is it? Continuing from what, and to what end? It was Justice Oliver Wendell Holmes, I believe, who once commented that "all life is an experiment." Enlarging our concept, as he did his, and with approximately equal justification, it would be equally true for us to say that all life is a continuing education. This is a noble conception, but one that is somewhat hard to handle in a page or two.

For professional men in general and for physicians in particular, the term is commonly used, if I understand it correctly, to describe any and all ways by which a man continues to educate himself after his formal training has been completed. This period includes all of his active years, and also the years after this, for those who have retired in one way or another, and whose time is, supposedly, their own.

The varieties of continuing education are about as many as those of the human comedy itself; but one must first distinguish between education and entertainment. With the broad definition with which we have started, the distinction is not always easy. Is a good bridge player continuing his education? How about a stock-market or real-estate operator? Or a yachtsman, a traveler, a gardener, a bird watcher, a collector, an accomplished pianist, a story teller, or an artist in any field? There is also the raising of one's own family, a form of continuing education that is traditionally neglected, according to some opinion, by the average American physician.

I shall come back to the general question presently, and try to provide some clarification. Let us take a few easier and more accepted examples first. There is the man who enjoys, more than anything in the world, his own clinical practice, and who continues this, with zest and effectiveness, to the end of his days. His continuing education, as everyone

*Dr. Richards shared the Nobel Prize for Medicine and Physics in 1956 with Drs. André F. Cournand and Werner Forssmann.

knows, can be carried on in all sorts of ways: his own observations, his talks with colleagues, reading of journals, taking courses, attending symposia, listening to detail men, and audiovisual demonstrations of varying sorts from varying sources, and so forth. The problem here is one of discrimination: to choose what is useful and reliable amongst the welter of offerings available. Whether a life of such single-minded dedication offers more, or less, to his patients, his friends, and himself than a life of more varied interests admits of no general answer; it depends on the man himself.

At the other end, perhaps, of the *dramatis personae* in our *comoedia humana*, yet with equal dedication and equal reward, is the scientist who is able to continue with his own research all his life long. This is not easy: research has a way of getting ahead even of the most hard working of its servants. But there are a few who can keep up—as did William Harvey, Giovanni Battista Morgagni, Carl Ludwig and, in these days, such men as A. V. Hill, Peyton Rous, Michael Heidelberger, and Eugene Opie.

A variant on this theme is the scientist who undertakes a related and yet quite new endeavor, makes the subject his own, and out of it brings an important contribution. Will anyone who heard it ever forget O. H. Robertson's talk before the Association of American Physicians in 1953 on "Science, Salmon and Trout"? Having been, in his active professional life, a distinguished microbiologist, a great teacher, and an ardent fisherman, he pursued, after his retirement in 1949, the ways of the Pacific salmon—all the way from the Pacific Ocean up the rivers to their Alaskan spawning grounds. He demonstrated, among other things, the striking adrenal hypertrophy and Cushing syndrome that is a part of the prodigious effort of swimming up the rivers to their sources as well as, after spawning, the rapid deterioration and death of the salmon.

This brings me, by an easy transition, to a small digression or apostrophe concerning that extraordinary aggregation—conglomeration if you like—of philosophers, scientists, naturalists, humanists, artists, artisans, moralists, theologians, philologists, poets, novelists, essayists, talkers, thinkers, dreamers, amateurs, connoisseurs, litterateurs, bibliophiles, anthropophiles, gynaiophiles, paediphiles, members all of the *genus piscatorium hominis*—the fisherman. Who, if he is a true fisherman, needs continuing education, beyond that which he finds within his avocation and himself, who knows better the meaning of leisure, or who

uses it as graciously? And yet what imperishable contributions fishermen have made to the continuing education of all of us, all the way from Noah and Jonah to Izaak Walton and Herman Melville: the gentlest of philosophers, yet telling the tallest of tales. The true fisherman, while sufficient unto himself, is nonetheless disposed to be good humored and generous to all. One is reminded somehow of Falstaff: "I am not only witty in myself, but the cause that wit is in other men."

There is no need to burden the reader with the innumerable further examples of ways by which continuing education can be achieved; he can imagine these for himself. But, as I have already noted, all activity is not education. There are also large differences in both the forms and the results of the educational process.

There are great virtues and much usefulness in what might be called passive education. This consists in the acquisition or reception of new knowledge, for use in one's own profession or for the enlargement of one's own horizon.

But I believe there are greater values in what I would call active education. This consists in finding a subject, a field of endeavor of one sort or another, in which you yourself can take an active part, can eventually excel, can become an authority and make an original or at least independent contribution.

Such an intensity or focus of interest will be self-enlarging and self-sustaining. All sorts of experiences—conversations, meetings, reading, travel, contemplation, even the routines of daily life—all in one way or another will add their bit to the enlargement of this sustaining interest. A clinician can choose a particular disease, an artist obviously his own field of art, an entrepreneur of any kind his own specialty. By this approach, what was a casual activity is transformed into continuing education, what was entertainment becomes an enterprise, what was a diversion achieves a sustaining purpose.

To accomplish this, I suggest four ways of proceeding: 1) start early, 2) dig deep, 3) contribute, 4) teach. These are perhaps self-evident, but a brief comment may be made on each.

Start early. What we are dealing with is creativity, or if you prefer, research; this takes time, and grows best to maturity if it is worked at over a long period. One recalls Pavlov's primary recommendation to his students: "gradualness."

Wilder Penfield has a delightful series of essays; the title of the first

one is *The Second Career*. In this he describes how a man, after retirement, can launch forth on new adventures outside of his profession. Dr. Penfield's interests are history, philosophy, and literature. The examples that he cites particularly, in later essays in the same book, are those of Sir William Osler and Sir Charles Sherrington. These were men of extraordinary eminence of mind and character, far beyond the rest of us. But even with Osler and Sherrington, their avocational interests were of long standing, a part of their earlier education, and became constant pursuits through all their long and fruitful lives. Penfield himself, as he tells us in another essay, *The Approach to Authorship*, worked for many years, with much tribulation and even failure, before he achieved the distinction of "authorship," an author being, as he puts it plainly, "a man who has written a book that people will buy." Even the artist has to work with enormous intensity over long periods if his work is to survive. No one knows this better than the artist himself, unless it be his audience.

Dig deep. Learn the language, whether mathematics, physics, history, the arts. Don't be content with what the authorities have said or done, no matter how reliable, venerable, or unimpeachable; get back to original sources, and in the original language if you possibly can.

Contribute. In a remarkably short time, if you work hard at it, you will begin to find that you are observing some things that other people have not observed, finding gaps in established knowledge, asking questions that have not occurred to others. The next step after this comes almost by itself: you will find that you have discovered or are doing or making something of value on your own; if you are dealing with things that can be expressed in some sort of language, you will have something worth saying.

Teach. This is not so often thought of, and yet it can be an acid test of whether what you have got hold of has value. Try and sell it to someone—not everyone; pick any audience you choose. You should be able to make your work look or sound interesting to someone. Don't lose heart with early failure. Any teacher knows full well that glazing of the eye, those restless stirrings in the seat that mark the point when even the most polite of audiences has lost contact, has had, in fact, as much as it can take. But any teacher knows also how a new finding becomes clarified in his own mind and even extends in scope

and value if he has been able to present it to others in a way that stirs their response.

Summing up, I have tried to show how large a conception continuing education can be, with the admonition that education still has to be differentiated from entertainment. I differentiate the passive from the active form of continuing education, the latter being that in which a man takes hold of a subject, masters it, and eventually contributes to it. I have argued that almost any field of endeavor, treated in such fashion, can qualify as education.

REFERENCES

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